

AMENDMENTS IN THE CLAIMS

1. (currently amended) A method for generating a Short Message Service[[s]] (SMS) business message for processing by a software application in a SMS commerce infrastructure system, the method comprising:

a server receiving, from a computer in communication with the server, preparing, by a~~business user,~~ a new SMS business message to be sent to a mobile recipient, wherein such that~~the business message is prepared via business user~~ uses a graphic user interface (GUI) of [[a]] the computer, wherein the GUI [[to]] invokes a SMS message composing wizard (SMS MCW) ~~which is accessed by the GUI such that the SMS MCW for retrieving~~ retrieves a SMS universal encoding template (SMS UET) including ~~which includes~~ pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message ~~by the business user such that the business user selects,~~ using the SMS MCW[[,]] and a[[n]] selected existing type of SMS business message format defined by the SMS UET, and wherein the new business message is automatically prepared from the ~~and then data enters data entered~~ at the GUI based on pre-defined data parameters for the ~~existing~~ selected existing type of SMS business message format ~~to automatically prepare the new SMS business message;~~

retrieving, by a data collection interface (DCI) of [[a]]the ~~server which is in communication with the computer,~~ the data entered at the GUI of the computer ~~by the business user~~ to prepare the new SMS business message;

autonomously validating, by the server, the data retrieved by the server DCI by comparing the data entered at the GUI ~~to the SMS UET~~ which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business message is properly formatted for the selected type of SMS business message format;

generating, by the server, a SMS message instance (SMS MI) which is categorized based on the selected type of SMS business message format ~~selected by the business user;~~

transmitting, by the server, the SMS MI to a wireless gateway for delivery of the SMS MI to a mobile recipient;

receiving from the mobile recipient an incoming SMS message in response to the SMS MI ~~that was transmitted by the server to the mobile recipient such that~~ includes an inbound template identification (ID) [[is]] extracted from the incoming SMS message by a runtime

processor of the server;

parsing, by the server runtime processor, the incoming SMS message ~~to decode data of the incoming SMS message~~ using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID to determine a decoded data, such that wherein ~~[[at]]~~ the retrieved inbound template is associated with the selected type of SMS business message format of the SMS MI that was sent to the mobile recipient; and

routing, by the server, the decoded data ~~of the incoming SMS message~~ to a software application disposed in the server for processing ~~[[of]]~~ the decoded data under control of the software application.

2. (previously presented) The method of claim 1, wherein the transmitting of the generated categorized SMS MI includes transmitting the SMS MI over a telephone network to the mobile recipient.

3. (previously presented) The method of claim 2, wherein the SMS MI comprises:
a message text entry field for alerting the mobile recipient about a commerce event; and
an encryption string entry field.

4. (currently amended) The method of claim 1, further comprising:

wherein preparing, by the business user, a new SMS business message type is prepared for a new SMS business message to be sent to the mobile recipient ~~such that the business user uses via the GUI to invoke invocation by the GUI within~~ the SMS message composing wizard (SMS MCW) to define a format for the new SMS business message type, wherein the new SMS business message type which is currently undefined by the SMS UET, and ~~to define wherein a new inbound template is defined~~ for a new incoming response SMS message from the mobile recipient ~~user~~ which is to be associated with the new SMS business message type;

creating a new inbound template associated with the new SMS business message type to be used by the server runtime processor to parse and decode the new incoming SMS message, which is based on the new SMS business message type, received from sent by a mobile recipient user in response to ~~transmission to the mobile recipient of~~ the new SMS business message; and

updating the existing SMS UET to include new definitions associated with the new SMS

business message type and updating the inbound template database to include the new inbound template associated therewith.

5. (currently amended) The method of claim 3, wherein the ~~said~~ encryption string entry field is adapted to accept communication session identification data.

6. (currently amended) The method of claim 5, wherein the ~~said~~ session identification data may be used to associate a response to a sent message.

7. (currently amended) The method of claim 6, wherein the ~~said~~ session identification data may be used to identify a software application to process a response to a sent message.

8. (currently amended) The method of claim 3, wherein the ~~said~~ encryption string entry field is adapted to accept security data.

9. (currently amended) The method of claim 3, wherein the ~~said~~ SMS MI further comprises:
a recipient authentication data entry field which is adapted to accept a personal identification number (PIN) from the ~~said~~ mobile recipient.

10. (currently amended) The method of claim 3, wherein the SMS MI further comprises:
a first recipient data entry field associated with a response indicator label, wherein the ~~said~~ first recipient data entry field is adapted to allow a response to be inserted by a first mobile recipient; and

a second recipient data entry field associated with an authentication indicator label, wherein the ~~said~~ second recipient data entry field is adapted to allow a response to be inserted by a second mobile recipient.

11. (currently amended) The method of claim 1, wherein the ~~preparing of the new SMS business message comprises the~~ SMS UET ~~which~~ includes categorization meta data defining a categorization (type) of SMS business messages, wherein:

the categorization represents a specific businesses intended usage;

the categorization meta data provides a definition of the categorization; and
the categorization meta data is parsable by a data processing system for generating SMS business messages.

12. (currently amended) The method of claim 11, wherein the SMS UET further comprises:
a message entry field for insertion of a message entry of full SMS message length (at least 160 characters) for access by the said mobile recipient, wherein:

the said template provides an additional field in the said new SMS business message for categorization meta data; and

the said meta data provides instructions for encoding a business intended usage of the said new SMS business message.

13. (currently amended) The method of claim 12, wherein the said meta data includes instructions for dispatching the said new SMS business message including instructions selected from: a message priority; a delivery time; a number of recipients; a delivery channel; a need for confirmation; a need for authentication; a need for encryption; and an intended web application to handle a response.

14. (currently amended) The method of claim 12, wherein the said meta data includes instructions for identifying a software application intended to handle an incoming response from the mobile recipient to the said new SMS business message.

15. (currently amended) The method of claim 1, further comprising:

receiving a request, [[by]] from a mobile recipient user, for a list of available inbound templates from a website of the business user; [[.]]

such that in response to receiving the mobile recipient's user's request for the list the server retrieves retrieving the SMS UET and based on the existing types of SMS business message formats indicated by the SMS UET a list of inbound templates that is associated with the existing types of SMS business message formats, wherein the list of inbound templates is based on the existing types of SMS business message formats indicated by the SMS UET; and

providing the SMS UET and the list of inbound templates is provided by the server to the

mobile recipient user; and

receiving a selection, from selecting, by the mobile recipient user, of at least one inbound template from the list of available inbound templates.

16. (currently amended) The method of claim 15, further comprising:

the server sending, by the server, the selected at least one inbound template ~~selected by the mobile user to be stored by~~ to the mobile recipient user to be used by the mobile user; and
receiving at least one SMS response message from the mobile user ~~to send at least one SMS business message request to the server.~~

17. (currently amended) The method of claim 16, wherein the said at least one SMS response message includes:

an encryption string encoded with an encoding key;
identification information of a software application capable of processing the said SMS response message; and
user authentication information.

18. (currently amended) The method of claim 17, wherein:

the said server has access to the said encoding key; and
the said server has access to the said inbound template.

19. (currently amended) The method of claim 1, further comprising:

receiving ~~in the server~~ the SMS response message sent from the said mobile recipient in response to the sending of the said SMS business message; and
tracking in a response tracking database the said received SMS response message.

20. (currently amended) The method of claim 19, further comprising:

identifying and parsing the said received SMS response message ~~by~~ at the said server using an inbound template selected from the inbound template database; and
processing the said received SMS response message ~~in said server~~ and forwarding the processed SMS response message to a software application within the server to invoke a

command by the software application.

21. (currently amended) A system to generate a (short message service) SMS business message for delivery to a mobile recipient, comprising:

~~a computer for automatically preparing, by a business user, a new SMS business message to be sent to a mobile recipient such that the business user uses a graphic user interface (GUI) of the computer to invoke a SMS message composing wizard (SMS MCW) which is accessed by the GUI such that the SMS MCW retrieves a SMS universal encoding template (SMS UET) which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message by the business user such that the business user selects, using the SMS MCW, an existing type of SMS business message format defined by the SMS MCW and then enters data at the GUI based on pre-defined data parameters for the existing selected type of SMS business message format to automatically prepare the new SMS business message;~~

a server in communication with ~~[[the]]~~ a computer, the server including~~[[:]]~~ a data collection interface to retrieve ~~[[the]]~~ a data entered at ~~[[the]]~~ a graphical user interface(GUI) of the computer in a by the business user to prepare the new SMS business message~~[[,]]~~; and

program code executing on the server that causes the server to perform operations comprising:

receiving the new SMS business message from the computer to be sent to a mobile recipient, wherein the business message is prepared via a graphic user interface (GUI) of the computer, wherein the GUI invokes a SMS message composing wizard (SMS MCW) for retrieving a SMS universal encoding template (SMS UET) including pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message using the SMS MCW and a selected existing type of SMS business message format defined by the SMS UET, and wherein the new business message is automatically prepared from the data entered at the GUI based on pre-defined data parameters for the selected existing type of SMS business message format;

~~wherein the server autonomously validates~~ validating the data retrieved by the server DCI by comparing the data entered at the GUI ~~by the business user to the SMS~~

UET which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business message is properly formatted for the selected type of SMS business message format; [[,]]

~~wherein~~ the server ~~generating~~ generates a SMS message instance (SMS MI) which is categorized based on the selected type of SMS business message format ~~selected by the business user~~; [[,]]

~~wherein~~ the server ~~transmitting~~ transmits the SMS MI to a wireless gateway for delivery of the SMS MI to a mobile phone of a mobile recipient, wherein the ~~mobile phone receives an incoming SMS message in response to the SMS MI that was transmitted by the server to the mobile recipient such that an~~ includes an inbound template identification (ID) ~~is extracted from the incoming SMS message by a runtime processor of the server~~; [[,]]

~~wherein~~ the server runtime processor ~~parsing~~ parses the incoming SMS message ~~to decode data of the incoming SMS message using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID to determine a decoded data, such that~~ wherein the retrieved inbound template is associated with the selected type of SMS business message format of the SMS MI that was sent to the mobile recipient; [[,]] and

~~wherein, in response to the decoded data,~~ the server routing ~~routes~~ the decoded data ~~of the incoming SMS message to a software application disposed in the server for processing of the decoded data under control of the software application.~~

22. (currently amended) A computer program product directly loadable into an internal memory of a ~~server digital~~ computer, the computer program product comprising a computer readable storage medium having stored therein ~~comprising~~ software code ~~portions for performing, that, when said product is executed on a~~ by the server computer, performs a method including:

the server computer receiving preparing, by a business user, a new short message service (SMS) business message to be sent to a mobile recipient, wherein the business message is prepared via such that the business user uses a graphic user interface (GUI) of a computer that is in communication with the server, wherein the GUI invokes ~~to invoke~~ a SMS message

composing wizard (SMS MCW) ~~for retrieving which is accessed by the GUI such that the SMS MCW retrieves~~ a SMS universal encoding template (SMS UET) including which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business message ~~by the business user such that the business user selects~~, using the SMS MCW[[,]] and a[[n]] selected existing type of SMS business message format defined by the SMS MCW UET, and wherein the new business message is automatically prepared and then enters data from the data entered at the GUI based on pre-defined data parameters for the selected existing ~~selected~~ type of SMS business message format ~~to automatically prepare the new SMS business message;~~

retrieving, by a data collection interface (DCI) of the [[a]] server computer~~which is in communication with the computer~~, the data entered at the GUI of the computer ~~by the business user~~ to prepare the new SMS business message;

autonomously validating, by the server computer, the data retrieved by the server DCI by comparing the data entered at the GUI ~~to the SMS UET~~ which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business message is properly formatted for the selected type of SMS business message format;

generating, by the server computer, a SMS message instance (SMS MI) ~~which is~~ categorized based on the selected type of SMS business message format ~~selected by the business user;~~

transmitting, by the server computer, the SMS MI to a wireless gateway for delivery of the SMS MI to a mobile recipient;

sending a list of a plurality of available inbound templates for a SMS business message to a mobile recipient;

receiving from the mobile recipient an incoming SMS message in response to the SMS MI ~~that was transmitted by the server to the mobile recipient such that~~ includes an inbound template identification (ID) [[is]] extracted from the incoming SMS message by a runtime processor of the server computer;

parsing, by the server computer's runtime processor, the incoming SMS message ~~to decode data of the incoming SMS message~~ using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID to determine a decoded data, such that wherein the retrieved inbound template is associated with

the selected type of SMS business message format of the SMS MI that was sent to the mobile recipient; and

routing, by the server, the decoded data ~~of the incoming SMS message~~ to a software application disposed in the server for processing ~~[[of]]~~ the decoded data under control of the software application.

23. (currently amended) A method for processing an incoming e-commerce short message service (SMS) response message received by a server from a mobile recipient responding to an outgoing e-commerce SMS message, the method comprising:

receiving from a mobile recipient an incoming SMS message in response to an SMS business message instance (SMS MI) that was automatically prepared at the mobile recipient by a business user using a SMS message composing wizard (SMS MCW), wherein the SMS message and which was transmitted by a ~~server to the mobile recipient, and wherein an~~ such that an inbound template identification (ID) is extracted from the incoming SMS message by a runtime processor of the server;

parsing, by the server runtime processor, the incoming SMS message ~~to decode data of the incoming SMS message~~ using an inbound template retrieved by the runtime processor from an inbound template database based on the extracted inbound template ID to determine a decoded data, such that wherein the retrieved inbound template is associated with a selected type of SMS business message format ~~previously selected by a business user and associated with the~~ of the SMS MI that was sent to the mobile recipient; and

routing, by the server, the decoded data ~~of the incoming SMS message~~ to a software application disposed in the server for processing ~~[[of]]~~ the decoded data under control of the software application.

24. (currently amended) The method of Claim 23, wherein the SMS message is provided in an [[An]] SMS commerce message format for use in sending a commerce message over a network to a mobile recipient, the SMS commerce message format comprising:

a message text entry field for alerting a mobile recipient about a commerce event identified in the message text entry field; an encryption string entry field; a response indicator label; a recipient data entry field associated with the said response indicator label; a recipient

authentication indicator label; and a recipient authentication data entry field associated with the ~~said~~ recipient authentication indicator label[.];

wherein each of said fields and the ~~said~~ indicator labels of the ~~said~~ commerce message are automatically filled in with data input on a graphic user interface of a computer by a business user utilizing a SMS message composing wizard (SMS MCW) disposed in the computer which is accessed by ~~[[the]]~~ a graphic user interface (GUI) ~~GUI~~ and which retrieves a SMS universal encoding template (SMS UET) that ~~which~~ includes pre-defined data parameters for existing categorizations (types) of SMS business message formats to facilitate ~~automatically facilitate generation the filling in~~ of the ~~said~~ data input into the ~~said~~ fields and the ~~said~~ indicator labels corresponding to a[[n]] selected existing type of SMS business message format, wherein the selected existing type of business message format is ~~which is selected by the business user as the~~ ~~said~~ SMS commerce message format.

25. (currently amended) The method ~~SMS message format~~ of claim 24, wherein the ~~said~~ encryption string entry field of the SMS message format is adapted to accept communication session identification data.

26. (currently amended) The method ~~SMS message format~~ of claim 24, wherein the ~~said~~ encryption string entry field of the SMS message format is adapted to accept security data.

27. (currently amended) The method ~~SMS message format~~ of claim 24, wherein the ~~said~~ recipient authentication data entry field of the SMS message format is adapted to accept a PIN number from the ~~said~~ mobile recipient.

28. (currently amended) A computer program product comprising software code on a computer readable storage medium, which software code is directly loadable into a memory of a digital computer and which when executed by the digital computer provides a method for encoding outbound SMS business messages for a data processing system for transmission over a network, the method comprising:

a server receiving from a computer in communication with the server ~~preparing, by a business user,~~ new SMS business messages to be sent to a mobile recipient, wherein ~~such that the~~

business messages are prepared via a graphic user interface (GUI) of [[a]] the computer, wherein the GUI [[to]] invokes a SMS message composing wizard (SMS MCW) which is accessed by the GUI such that the SMS MCW retrieves for retrieving a SMS universal encoding template (SMS UET) including which includes pre-defined data parameters for existing categorizations (types) of SMS business messages to automatically facilitate the preparation of the new SMS business messages by the business user such that the business user selects, using the SMS MCW[[,]] for each new SMS business message to be prepared, and a[[n]] selected existing type of SMS business message format defined by the SMS UET, and wherein the new business message is automatically prepared from the and then enters data entered at the GUI based on pre-defined data parameters for the selected existing type of SMS business message format to automatically prepare the new SMS business messages;

retrieving, by a data collection interface (DCI) of [[a]]the server ~~which is in communication with the computer~~, the data entered at the GUI of the computer ~~by the business user~~ to prepare the new SMS business messages;

autonomously validating, by the server, the data retrieved by the server DCI by comparing the data entered at the GUI ~~to the SMS UET~~, which has been retrieved by the server, to ensure that there are no data parameter errors and to ensure that the new SMS business messages are properly formatted for the selected type(s) of SMS business message format(s);

generating, by the server, for each new SMS business message, ~~by the server~~, a SMS message instance (SMS MI) which is categorized based on the selected type(s) of SMS business message format(s) ~~selected by the business user; and~~

transmitting, by the server, each SMS MI to a wireless gateway for delivery of each SMS MI to a mobile recipient; and [[,]]

wherein the SMS UET includes categorization meta data defining the selected type(s) of the said outbound prepare new SMS messages such that said that defines a commerce categorization (type) of the said-outbound SMS business messages, wherein the categorization represents a specific intended business usage of each outbound SMS business message, wherein the said categorization meta data provides definitions of each categorization of the said SMS messages and instructions that are parsable into semantic information used by the said data processing system to encode and generate each said SMS MI for corresponding to said SMS business messages.